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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|--------------------------|---------------------|------------------|
| 09/883,376 | 06/19/2001 | Thomas Guthrie Zimmerman | ARC920000049US1 | 1059 |
| 26381 | 7590 | 10/04/2004 | EXAMINER | |
| LACASSE & ASSOCIATES, LLC 1725 DUKE STREET SUITE 650 ALEXANDRIA, VA 22314 | | | STEVENS, THOMAS H | |
| | | ART UNIT | | PAPER NUMBER |
| | | 2123 | | 3 |
| DATE MAILED: 10/04/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/883,376 | ZIMMERMAN, THOMAS GUTHRIE |
| | Examiner | Art Unit |
| | Thomas H. Stevens | 2123 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 19 June 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-31 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-31 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 19 June 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 6/19/00.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

1. Claims 1-31 were examined.

Hyperlinks

2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (pg. 5, lines 15 and 18; pg. 14, line 18; pg. 20, line 13; and pg. 23, line 23). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Information Disclosure Statement

3. The listing of references in the specification (pg. 13, lines 18-20; pg. 15, lines 2-6 and 14-16; pg. 18, lines 8-11 and 16-18; pg. 19, lines 7-19; pg. 20, lines 10-14; pg. 23, lines 10-14; pg. 24, lines 3-6) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited on form PTO-892, they have not been considered.

4. Furthermore, the "Welcome to Digital: Convergence" reference month was missing, therefore will not be cited for the following reason: The date of publication supplied must include at least the month and year of publication, except that the year of publication (without the month) will be accepted if the applicant points out in the

information disclosure statement that the year of publication is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the particular month of publication is not an issue. The place of publication refers to the name of the journal, magazine, or other publication in which the information being submitted was published. (MPEP 609 pg. 600-127 to 600-128; May 2004 issue)

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-15, 19-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The disclosure of "real tool" is ambiguous and indefinite to the degree one queries as to whether it's a physical property or a method or enhancement /improvement (e.g., pg. 8, lines 15-17 of the specification).

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

8. Regarding claims 1-31, the word "system" renders the claim vague and indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

9. Regarding claim 10, the word "utilize" renders the claim vague and indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

10. Furthermore, claims 1-15,19-31, the phrase "real tool" renders the claim vague and indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

12. Claims 16,17,19 are rejected under 35 U.S.C. 102(e) as being anticipated by Clancey et al. (U.S. Patent 6,216,098 (2001)). Clancey et al. teaches methods and apparatus for modeling behavior (abstract).

Claim 16. A system in which electronic media to be presented by a computing device is synchronized to a selected region of off-line medium, said system comprising: a hand-held imager (Clancey: column 1, lines 35-50), said imager detecting a region of said off-line media and transmitting an electronic representation of said region to said computer; a presentation device, said presentation device presenting electronic media, synchronized (Clancey: column 45 ,lines 31-53) to said region of off-line media.

Claim 17. A system in which electronic data to be presented by a computing device is synchronized (Clancey: column 45, lines 31-53) to a selected region of off-line medium, as per claim 16 (Clancey: column 1, lines 35-50), wherein said presentation device is a visual display (Clancey: column 15, 35-37).

Claim 19. A system in which electronic data to be presented by a computing device is synchronized to a selected region of off-line medium, as per claim 16 (Clancey: column

1, lines 35-50), wherein synchronization(Clancey: column 45 ,lines 31-53) simulates the functions of real tools.

Claim Rejections - 35 USC § 103

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 1 is rejected under 35 U.S.C. 103 (a) as unpatentable by Combs et al. (U.S. Patent 5,909,211 (1999)) in view of Clancey et al. (U.S. Patent 6,216,098 (2001)). Combs et al. teaches a pressure sensitive touch pad with an overlay depicting a pattern, (e.g., a typewriter keyboard), for providing specific data characteristics of the pattern to a host computer (abstract) with the use of a wired stylus (column 3 line 6); but doesn't

teach the use of wireless PDA for simulation. Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Clancey et al. to modify Combs et al. since one would need to accurately peck the proper icon on the PDA.

Claim 1. A system for simulating (Clancey: column 1, lines 35-50) a real tool in which a computer displays data based upon a selected portion of an image printed an off-line medium, said system comprising (Clancey: column 5, lines 56-61): a probe device comprising at least a hand-held probe section, said probe device (Combs: column 3 line 6) transmitting information of said selected portion to said computer; a computer storage medium (Clancey: column 5, lines 52-54), said storage medium retaining real tool data, said real tool data representative of an output of a real tool examining a selected portion of said actual item corresponding to said selected portion of said image, and wherein said computer retrieves real tool data synchronized (Clancey: column 45 ,lines 31-53) to said position and displays said real tool data.

16. Claims 2 and 3 are rejected under 35 U.S.C. 103 (a) as unpatentable by Combs et al. (U.S. Patent 5,909,211 (1999)) in view of Clancey et al. (U.S. Patent 6,216,098 (2001)) in further view of Capps et al. (U.S. Patent 6,512,525 (2003)). Combs et al. teaches a pressure sensitive touch pad and an overlay depicting a pattern, e.g., a

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typewriter keyboard, for providing specific data characteristics of the pattern to a host computer (abstract) with the use of a wired stylus (column 3 line 6); but doesn't teach the use of wireless PDA for simulation with icons. Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61) with Capps et al. teaching a pen-based computer system with icons.

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Capps et al. and Clancey et al. to modify Combs et al. since it would have been advantageous for the use to accurately peck the proper icon on the PDA control the simulation properly.

Claim 2. A system for simulating (Clancey: column 1, lines 35-50) a real tool in which a computer displays data based upon a selected portion of an image printed on an off-line medium, as per claim 1, wherein said off-line medium includes a plurality of icons (Capps: column 9, lines 35-37) printed thereon, each of said icons indicating a different real tool, selection of an icon by said hand-held probe (Combs: column 3 line 6) part changing said multimedia data synchronized with a portion of said image so as to be representative of an output of the real tool indicated by said icon (Capps: column 9, lines 35-37).

Claim 3. A system for simulating (Clancey: column 1, lines 35-50; Combs: column 3 line 6) a real tool in which a computer displays data based upon a selected portion of an

image printed on an off-line medium, as per claim 1, wherein a computer display includes a plurality of icons (Capps: figure 3 with column 9, lines 31-41) printed thereon, each of said icons (Capps: column 9, lines 35-37) indicating a different real tool.

17. Claim 4 is rejected under 35 U.S.C. 103 (a) as unpatentable by Combs et al. (U.S. Patent 5,909,211 (1999)) in view of Clancey et al. (U.S. Patent 6,216,098 (2001)) and in further view of Slotznick (U.S. Patent 6,108,640 (2000)). Combs et al. teaches a pressure sensitive touch pad and an overlay depicting a pattern, e.g., a typewriter keyboard, for providing specific data characteristics of the pattern to a host computer (abstract) with the use of a wired stylus (column 3 line 6); but doesn't teach the use of wireless PDA for simulation or dictionaries and translators. Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61) with Slotznick teaching of hand-held devices having dictionaries and thesauruses (column 9, lines 35-54)

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Clancey et al. and Slotznick to modify Combs et al. since one would need to accurately peck dates and times of the simulation then relay it to the main control center for verification and confirmation.

Claim 4. A system for simulating (Clancey: column 1, lines 35-50; Combs: column 3 line 6) a real tool in which a computer displays data based upon a selected portion of an image printed on an off-line medium, as per claim 1, wherein said real tool is any one of

a telescope, spectrum analyzer, radio telescope, magnetometer, scale, seismometer, ground penetrating radar, x-ray, pH device, thermometer, stethoscope, electrophoretic device, Geiger counter, chemical assay device, book reader, word pronouncer, book translator (Slotnick: column 9, lines 35-54), or dictionary.

18. Claims 5-7 are rejected under 35 U.S.C. 103 (a) as unpatentable by Combs et al. (U.S. Patent 5,909,211 (1999)) in view of Clancey et al. (U.S. Patent 6,216,098 (2001)) and in further view of Schuster (U.S. Patent 6,446,127 (2002)). Combs et al. teaches a pressure sensitive touch pad and an overlay depicting a pattern, (e.g., a typewriter keyboard), for providing specific data characteristics of the pattern to a host computer (abstract) with the use of a wired stylus (column 3 line 6); but doesn't teach the use of wireless PDA for simulation or the use of the PDA with a camera. Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61) with Schuster's teaching of the user's mobility services as data network telephony system, with a camera (abstract with column 7, lines 20-20-43).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Clancey et al. and Schuster to modify Combs et al. since one would need to accurately peck the dates and times of the simulation then relay still photo of the event.

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Claim 5. A system for simulating a real tool in which a computer displays data based upon a selected portion of an image printed on an off-line medium, as per claim 1(Clancey: column 1, lines 35-50; Combs: column 3 line 6), wherein said hand-held probe includes a camera to capture said selected portion (Schuster: column 7, lines20-20-43).

Claim 6. A system for simulating (Clancey: column 1, lines 35-50; Combs: column 3 line 6) a real tool in which a computer displays data based upon a selected portion of an image printed on an off-line medium, as per claim 5 (Schuster: column 7, lines20-20-43), further including image retrieval (Schuster: column 7, lines 13-21) means to match said sampled image to stored reference images.

Claim 7. A system for simulating (Clancey: column 1, lines 35-50; Combs: column 3 line 6) a real tool in which a computer displays data based upon a selected portion of an image printed on an off-line medium, as per claim 5(Schuster: column 7, lines 20-20-43), further including position determination means to determine relative position of said sampled image (Schuster: column 7, lines 13-21) to said reference image.

19. Claims 8 –11 are rejected under 35 U.S.C. 103 (a) as unpatentable by Combs et al. (U.S. Patent 5,909,211 (1999)) in view of Clancey et al. (U.S. Patent 6,216,098 (2001)) and in further view of Kadaba et al. (U.S. Patent 6,285,916 (2001)). Combs et al. teaches a pressure sensitive touch pad and an overlay depicting a pattern, (e.g., a

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typewriter keyboard), for providing specific data characteristics of the pattern to a host computer (abstract) with the use of a wired stylus (column 3 line 6); but doesn't teach the use of wireless PDA for simulation or bar codes. Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61); Kadaba et al. teaching the method of tracking parcels by bar codes via PDA's.

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Clancey et al. and Kadaba et al. to modify Combs et al. since one would need to accurately peck the proper codes relating to certain simulation programs to either edit or delete.

Claim 8. A system for simulating (Clancey: column 1, lines 35-50; Combs: column 3 line 6) a real tool in which a computer displays data based upon a selected portion of an image printed on an off-line medium, as per claim 1, wherein said hand-held probe section is a bar code (Kadaba: column 2, lines 1-8 and 63-67; and figures 5C, 5E, 7E) reader and said off-line medium has a plurality of bar codes printed thereon juxtaposed with said image, each of said bar codes designating position data such that said bar code reader reads one of said bar codes, transmits data synchronized (Clancey: column 45 ,lines 31-53) to said bar code.

Claim 9. A system for simulating (Clancey: column 1, lines 35-50; Combs: column 3 line 6) a real tool in which a computer displays data based upon a selected portion of an

image printed on an off-line medium, as per claim 8, wherein said bar codes are printed on an overlay (Kadaba: column 9, lines 15-21 and figure 8F) superimposed on said off-line media.

Claim 10. A system for simulating (Clancey: column 1, lines 35-50; Combs: column 3 line 6) a real tool in which a computer displays data based upon a selected portion of an image printed on an off-line medium, as per claim 8, wherein said bar codes are printed utilizing infrared ink (Kadaba: column 5, lines 30-34).

Claim 11. A system for simulating (Clancey: column 1, lines 35-50; Combs: column 3 line 6) a real tool in which a computer displays data based upon a selected portion of an image printed on an off-line medium, as per claim 1, wherein said probe device transmits position information (Kadaba: column 6, lines 2-6) such that said displayed data continuously changes synchronously (Clancey: column 45, lines 31-53) to said hand-held probe parts movement across said image.

20. Claims 12-14 are rejected under 35 U.S.C. 103 (a) as unpatentable by Combs et al. (U.S. Patent 5,909,211 (1999)) in view of Clancey et al. (U.S. Patent 6,216,098 (2001)) and in further view of Carman, II (U.S. Patent 5,454,046 (1995)). Combs et al. teaches a pressure sensitive touch pad and an overlay depicting a pattern, e.g., a typewriter keyboard, for providing specific data characteristics of the pattern to a host computer (abstract) with the use of a wired stylus (column 3 line 6); but doesn't teach

the use of wireless PDA for simulation or a digitizer. Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61) with Carman's teaching of a universal symbolic handwriting recognition system for converting user entered time order stroke sequences into a computer readable test (abstract).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Clancey et al. and Carman, II to modify Combs et al.. since the PDA and the host computer needs to have a reference point on which to scan.

Claim 12. A system for simulating a real tool in which a computer displays data based upon a selected portion of an image printed on an off-line medium, as per claim 11, wherein said probe device is a digitizer using magnetic fields to determine the hand-held probe position.

Claim 13. A system for simulating (Clancey: column 1, lines 35-50; Combs: column 3 line 6) a real tool in which a computer displays data based upon a selected portion of an image printed on an off-line medium, as per claim 11, wherein said probe device is a digitizer (Carmen: column 8, lines 19-42) using electric fields to determine the hand-held probe position.

Claim 14. A system for simulating (Clancey: column 1, lines 35-50; Combs: column 3 line 6) a real tool in which a computer displays data based upon a selected portion of an

image printed (Carmen: column 8, line 19-21) on an off-line medium, as per claim 13, wherein said probe is part of a human hand (Note: examiner did not address "human hand"; reason: significance questionable).

21. Claim 15 is rejected under 35 U.S.C. 103 (a) as unpatentable by Combs et al. (U.S. Patent 5,909,211 (1999)) in view of Clancey et al. (U.S. Patent 6,216,098 (2001)) and in further view of Schneider et al. (U.S. Patent 6427079 (2002)). Combs et al. teaches a pressure sensitive touch pad and an overlay depicting a pattern, e.g., a typewriter keyboard, for providing specific data characteristics of the pattern to a host computer (abstract) with the use of a wired stylus (column 3 line 6); but doesn't teach the use of wireless PDA for simulation or a digitizer. Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61) with Schneider et al. teaching of splines of magnetic fields to determine parameters in a remote location (abstract).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Clancey et al. and Schneider et al. to modify Combs et al. since the PDA and the host computer needs to have a reference point on which to scan the corpse.

Claim 15. A system for simulating (Clancey: column 1, lines 35-50; Combs: column 3 line 6) a real tool in which a computer displays data based upon a selected portion of an image printed (Carmen: column 8, line 19-21) on an off-line medium, as per claim 11, wherein said probe device is a digitizer (Carmen: column 8, lines 19-42) using ultrasonic

sound (Schneider et al.: column 15, lines 50-67) to determine the hand-held probe position.

22. Claim 18 is rejected under 35 U.S.C. 103 (a) as unpatentable by Clancey et al. (U.S. Patent 6,216,098 (2001)) in view of Hurt et al., (U.S. Patent 5,546,337 (2002)). Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61); but doesn't teach multimedia. Hurt et al., teaches data storage and data retrieval (column 1, line 19).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Hurt et al. to modify Clancey et al. to expand a PDA's communication acceptability.

Claim 18. A system in which electronic data to be presented by a computing device is synchronized (Clancey: column 1, lines 35-50) to a selected region of off-line medium, as per claim 16, further including a multimedia database (Hurt: column 1, lines 29-51) wherein multimedia data is synchronized to movement of said hand held imager over said off-line media.

23. Claim 20 is rejected under 35 U.S.C. 103 (a) as unpatentable by Clancey et al. (U.S. Patent 6,216,098 (2001)) and in view of Slotnick (U.S. Patent 6,108,640 (2000)). Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms

simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61); but doesn't teach an electronic device with linguistic functions and applications. Slotznick teaches hand-held devices having dictionaries and thesauruses (column 9, lines 35-54).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Slotznick to modify Clancey et al. since it would have been advantageous for the individual to perform word processing functions such as dictation and status reports.

Claim 20. A system in which electronic data to be presented by a computing device (Clancey: column 55, lines 12-18) is synchronized (Clancey: column 45, lines 31-53) to a selected region of off-line medium, as per claim 19, wherein real tool is any one of a telescope, spectrum analyzer, radio telescope, magnetometer, scale, seismometer, ground penetrating radar, x-ray, pH device, thermometer, stethoscope, electrophoretic device, Geiger counter, chemical assay device, book reader, word pronouncer, book translator, or dictionary (Slotznick: column 9, lines 35-54).

24. Claims 21- 23 are rejected under 35 U.S.C. 103 (a) as unpatentable by Clancey et al. (U.S. Patent 6,216,098 (2001)) and in view of Narayanaswami (U.S. Patent 6,504,571 (2003)). Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61); but doesn't teach photographic applications. Narayanaswami teaches digital imagery.

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Narayanaswami to modify Clancey et al. since it would benefit a site surveyor to photograph and transmit site images to the management team for study and analysis.

Claim 21. A system in which electronic data to be presented by a computing device (Clancey: column 55, lines 12-18) is synchronized (Clancey: column 45, lines 31-53) to a selected region of off-line medium, as per claim 16, further comprising: a camera in said hand-held imager, said camera imaging (Narayanaswami: column 5, lines 9-34) said selected region of off-line media and outputting a sampled image; a database, containing digital representations of reference images, said reference images including selected regions of off-line media (Narayanaswami:column 6, lines 31-48); an image retriever, receiving said sampled image and identifying said sampled image as a selected region of a reference image in said database, a position detector receiving said sampled images and outputting position of said sample image in said identified reference image, and wherein said presentation device presents said electronic media based on said position and said identified reference image (Narayanaswami: column 8, lines 40-62).

Claim 22. A system in which electronic data (Clancey: column 55, lines 12-18) to be presented by a computing device is synchronized to a selected region of off-line

medium, as per claim 21, wherein said electronic media is an image (Narayanaswami: column 6, lines 31-48).

Claim 23. A system in which electronic data to be presented by a computing device is synchronized to a selected region of off-line medium, as per claim 21, wherein said electronic media (Narayanaswami: column 1, lines 1-4. Note: Webster's dictionary defines multimedia as the following: *The combined use of media, such as television, radio, print, and the Internet, as for advertising or publicity*) is sound, including any of spoken work, music, or sound effects.

25. Claim 24 is rejected under 35 U.S.C. 103 (a) as unpatentable by Clancey et al. (U.S. Patent 6,216,098 (2001)) in view of Narayanaswami (U.S. Patent 6,504,571 (2003)) and in further view of Slotnick (U.S. Patent 6,108,640 (2000)). Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61); but doesn't teach photographic applications or word databases (i.e., dictionary). Narayanaswami teaches digital imagery with Slotnick teaching hand-held devices having dictionaries and thesauruses (column 9, lines 35-54).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Narayanaswami and Slotnick to modify Clancey et al. since it would benefit a site surveyor to photograph and transmit site images to the applicable players on the management team for study and analysis with digital notes and comments.

Claim 24. A system in which electronic data (Clancey: column 55, lines 12-18) to be presented by a computing device is synchronized to a selected region of off-line medium, as per claim 21(Clancey: column 55, lines 12-18; Narayanaswami: column 8, lines 40-62) wherein response simulates the function of a real tool selected from the list of a telescope, spectrum analyzer, radio telescope, magnetometer, scale, seismometer, ground penetrating radar, x -ray, pH device, thermometer, stethoscope, electrophoretic device, Geiger counter, chemical assay device, book reader, word pronouncer, book translator, or dictionary (Slotnick: column 9, lines 35-54).

Claim 25 is rejected under 35 U.S.C. 103 (a) as unpatentable by Clancey et al. (U.S. Patent 6,216,098 (2001)) in view of Kadaba et al. (U.S. Patent 6,285,916 (2001)) and in further view of Narayanaswami (U.S. Patent 6,504,571 (2003)). Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61); but doesn't teach the use of wireless PDA for simulation or bar codes or capturing images. Kadaba et al. teaching the method of tracking parcels by bar codes via PDA's while Narayanaswami teaches digital imagery.

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Kadaba et al. and Narayanaswami to modify Clancey et al. since it would have been advantageous capture and code each simulation result from the field and transmit it headquarters.

Claim 25. A system in which data to be displayed by a computer (Clancey: column 55, lines 12-18) is synchronized (Clancey: column 45, lines 31-53) to a selected region of an image printed on a off-line medium, as per claim 16, wherein said image is divided into a plurality of regions (Narayanaswami: column 8, lines 40-62), each of said regions having a bar code printed therein (Kadaba: column 2, lines 1-8 and 63-67; and figures 5C, 5E, 7E), and is said electronic media (Narayanaswami: column 1, lines 1-4) representative of an output of a real tool examining a region of an actual item corresponding to said region of said image detected by a hand held bar code reader used as said hand-held imager.

Claim 27 is rejected under 35 U.S.C. 103 (a) as unpatentable by Clancey et al. (U.S. Patent 6,216,098 (2001) in view of Kadaba et al. (U.S. Patent 6,285,916 (2001)) and in further view of Narayanaswami (U.S. Patent 6,504,571 (2003)) with Slotnick (U.S. Patent 6,108,640 (2000)). Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61); but doesn't teach the use of wireless PDA for simulation or bar codes, capturing images or word processing. Kadaba et al. teaching the method of tracking parcels by bar codes via PDA's while Narayanaswami teaches digital imagery; and Slotnick teaches hand-held devices having dictionaries and thesauruses (column 9, lines 35-54).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Kadaba et al. and Narayanaswami to modify Clancey et al. since it would have been advantageous capture and code each simulation results to headquarters with a detailed message.

Claim 27. A system in which data to be displayed by a computer (Clancey: column 55, lines 12-18) is synchronized (Clancey: column 45, lines 31-53) to a selected region of an image printed on a off-line medium, said image divided into a plurality of regions (Narayanaswami: column 8, lines 40-62), each of said regions having a bar code printed therein(Kadaba: column 2, lines 1-8 and 63-67; and figures 5C, 5E, 7E), as per claim 25, wherein said real tool is any one of a telescope, spectrum analyzer, radio telescope, magnetometer, scale, seismometer, ground penetrating radar, x-ray, pH device, thermometer, stethoscope, electrophoretic device, Geiger counter, chemical assay device, book reader, word pronouncer, book translator, or dictionary (Slotnick: column 9, lines 35-54).

26. Claim 26 is rejected under 35 U.S.C. 103 (a) as unpatentable by Clancey et al. (U.S. Patent 6,216,098 (2001)) in view of Narayanaswami (U.S. Patent 6,504,571 (2003)) and in further view of Slotnick (U.S. Patent 6,108,640 (2000)) with Capps et al. (U.S. Patent 6,512,525 (2003)). Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61); but doesn't teach photographic applications, word

databases (i.e., dictionary) or electronic devices with icons. Narayanaswami teaches digital imagery with Slotnick teaching hand-held devices having dictionaries and thesauruses (column 9, lines 35-54); and Capps et al. teaching a pen-based computer system with icons.

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Narayanaswami, Slotnick and Capps et al. to modify Clancey et al. since it's beneficial for a site surveyor to photograph and transmit site images to management for study and analysis with digital notes and comments.

Claim 26. A system in which data to be displayed by a computer (Clancey: column 55, lines 12-18) is synchronized (Clancey: column 45, lines 31-53) to a selected region of an image (Narayanaswami: column 8, lines 40-62), printed on a off-line medium, as per claim 25, wherein said off-line medium includes a plurality of icons printed thereon, each of said icons indicating a different real tool, selection of an icon by said hand-held bar code reader (Kadaba: column 2, lines 1-8 and 63-67; and figures 5C, 5E, 7E) changing said multimedia data synchronized with each bar code printed in a region of said image so as to be representative of an output of the real tool indicated by said icon (Capps: column 9, lines 35-37).

27. Claim 28 is rejected under 35 U.S.C. 103 (a) as unpatentable by Clancey et al. (U.S. Patent 6,216,098 (2001)) in view Kadaba et al. (U.S. Patent 6,285,916 (2001)) and in further view of Narayanaswami (U.S. Patent 6,504,571 (2003)). Clancey et al.

teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61); but doesn't teach bar codes and image capturing and processing. Kadaba et al. teaching the method of tracking parcels by bar codes via PDA's while Narayanaswami teaches digital imagery.

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Kadaba and Narayanaswami to modify Clancey et al. since it's beneficial for a site surveyor to photograph and transmit site images to management for study and analysis with digital notes and comments.

Claim 28. A system in which data to be displayed by a computer (Clancey: column 55, lines 12-18) is synchronized (Clancey: column 45, lines 31-53) to a selected region of an image printed on a off-line medium (Narayanaswami: column 8, lines 40-62), said image divided into a plurality of regions, each of said regions having a bar code (Kadaba: column 2, lines 1-8 and 63-67; and figures 5C, 5E, 7E) printed therein, as per claim 16, wherein said image is an image of a structure of a database and navigation of said database is synchronized to movements of said hand-held bar code (Kadaba: column 2, lines 1-8 and 63-67; and figures 5C, 5E, 7E) reader over said image(Narayanaswami: column 8, lines 40-62).

28. Claims 29-30 are rejected under 35 U.S.C. 103 (a) as unpatentable by Clancey et al. (U.S. Patent 6,216,098 (2001)) in view Eldridge et al. (U.S. Patent 6,515,988 (2003)) and in further view of Ausems et al. (U.S. Patent 6,434,403 (2002)). Clancey et

al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61); but it doesn't teach printer/PDA capabilities along with synchronization. Eldridge et al. teaches a system of including a plurality of workstations, file servers printer and other fixed devices coupled to a network (abstract), while Ausems et al teaches a wireless telephone engine, smart-card and Personal Digital Assistant (PDA) integrated in a single device (abstract).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Eldridge et al. and Ausems et al. to modify Clancey et al. since the equipment must be active and working in remote locations.

Claim 29. A method of simulating a real tool in which a computer (Clancey: column 33, lines 27-57) displays data based upon a selection of a location of an image printed on a off-line medium by a hand-held probe (Eldridge: column 5, lines 15-28 with figure 2 (2)), said off-line medium including a plurality of icons printed thereon, each of said icons (Ausems: column 7, lines 9-12) indicating a different real tool, said method comprising: receiving position information representative of a location (Ausems: column 5, lines 36-47) of said image printed on said off-line medium said hand-held probe part is pointing to (Eldridge: column 4 ,lines 42-43 with figure 2); determining data synchronized to said location (Ausems: column 7, lines 45-52); retrieving said data, said data representative of an output of a real tool examining a location (Ausems: column 7, lines 37-41) of an actual item corresponding to said location of said image pointed to by said hand-held probe part, and displaying said data.

Claim 30. A method of simulating a real tool in which a computer displays (Clancey: column 33, lines 27-57) data based upon a selection of a location of an image printed on a off-line medium by a hand-held probe (Eldridge: column 5, lines 15-28 with figure 2 (2)), said off-line medium including a plurality of icons (Ausems: column 7, lines 9-12) printed thereon, each of said icons indicating a different real tool, as per claim 29, said method further comprising: receiving icon information representative of one of a plurality of icons pointed to by said hand-held probe (Ausems: column 7, lines 9-12), said icon representative of a real tool; changing said data synchronized (Ausems: column 7, lines 45-52)with said location of said image so as to be representative of an output (Ausems: column 7, lines 32-33) of the real tool indicated by said icon.

29. Claim 31 is rejected under 35 U.S.C. 103 (a) as unpatentable by Clancey et al. (U.S. Patent 6,216,098 (2001)) in view Eldridge et al. (U.S. Patent 6,515,988 (2003)) and in further view of Ausems et al. (U.S. Patent 6,434,403 (2002)) with Slotnick (U.S. Patent 6,108,640 (2000)). Clancey et al. teaches methods of modeling and remote simulation (i.e., Brahms simulation engine) of events with the use of wireless PDA's (column 5, lines 55-61); but doesn't printer/PDA capabilities along with synchronization and word databases (i.e., dictionary). Eldridge et al. teaches a system of including a plurality of workstations, file servers printer and other fixed devices coupled to a network (abstract), while Ausems et al teaches a wireless telephone engine, smart-card and Personal Digital Assistant (PDA) integrated in a single device (abstract); and Slotnick

teaching of hand-held devices having dictionaries and thesauruses (column 9, lines 35-54).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Eldridge et al., Ausems et al. and Slotznick to modify Clancey et al. since the equipment must always be active and working while in remote locations.

Claim 31. A method of simulating (Clancey: column 33, lines 27-57) a real tool in which a computer displays data based upon a selection of a location of an image printed on a off-line medium by a hand-held probe (Eldridge: column 5, lines 15-28 with figure 2 (2)), said off-line medium including a plurality of icons (Ausems: column 7, lines 9-12) printed thereon, each of said icons (Ausems: column 7, lines 9-12) indicating a different real tool, as per claim 29, wherein said real tool is any one of a telescope, spectrum analyzer, radio telescope, magnetometer, scale, seismometer, ground penetrating radar, x-ray, pH device, thermometer, stethoscope, electrophoretic device, Geiger counter, chemical assay device; book reader, word pronouncer, book translator, or dictionary (Slotznick: column 9, lines 35-54).

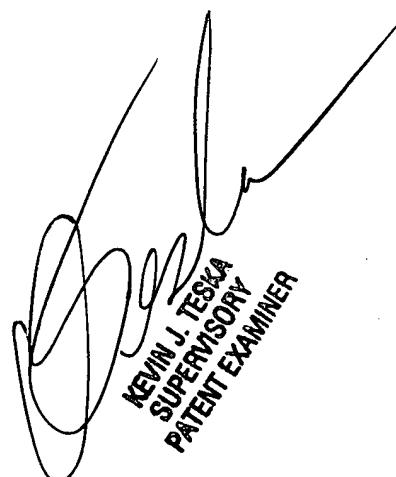
Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is (703) 305-0365, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Kevin Teska at (703) 305-9704. The fax number for the group is 703-872-9306.

Any inquiries of general nature or relating to the status of this application should be directed to the Group receptionist whose phone number is (703) 305-3900.

September 23, 2004

THS



A handwritten signature in black ink, appearing to read "KEVIN J. TESKA". To the right of the signature, the text "SUPERVISORY" and "PATENT EXAMINER" is printed vertically.